

# United States Patent [19]

Wetterlin et al.

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[54] DEVICE IN POWDER INHALATORS

[75] Inventors: Kjell L. L. Wetterlin, S Sandby, Sweden; Risto Virtanen, Nurmijärvi, Finland; Jan A. R. Andersson, S Sandby, Sweden

[73] Assignee: Aktiebolaget Draco, Lund, Sweden

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Related U.S. Application Data

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[30] Foreign Application Priority Data

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[58] Field of Search 128/200.18, 200.21, 128/203.12, 203.15, 203.22-203.24, 204.13; 239/461, 467, 487, 489, 500-501, 518-519; 222/345, 349

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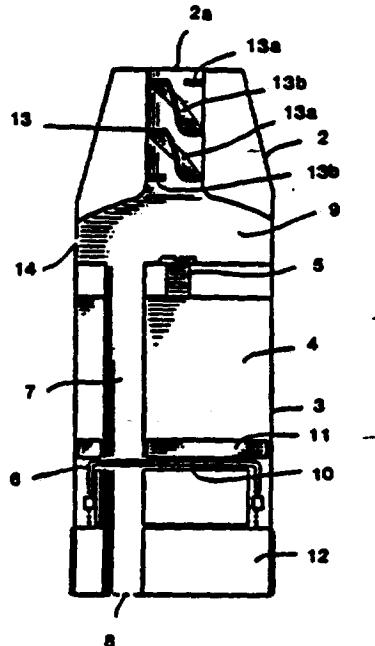
Primary Examiner—Angela D. Sykes

Attorney, Agent, or Firm—White & Case

[57] ABSTRACT

Device in a previously known powder inhalator intended for inhalation of an air flow which contains pharmacologically active compound in micronized form. The powder inhalator comprises a nozzle unit (2) with a nozzle aperture (2a) as well as a container unit (3) with a releasing or dosing unit (6) for delivering the active compound. The air flow generated by inhalation is at least partly aspirated through an air conduit (7) located in the container unit (3), which conduit extends from an air inlet (8), communicating with the environment, via said releasing or dosing unit (6), up to said nozzle unit (2). According to the invention, deflector devices are stationarily arranged in the container unit (3) and/or in the nozzle unit (2), said deflector devices, for example in the shape of a helical channel portion (13), being arranged to create a powerful deflecting movement for the purpose of disrupting said powder particles into the respirable particle size distribution (less than 5  $\mu\text{m}$ ).

10 Claims, 5 Drawing Sheets



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